Human IL-17E/IL-25 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1258

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17E in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) IL-17, rhIL-17B, rhIL-17C, and rhIL-17F is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human IL-17E (R&D Systems, Catalog # 1258-IL) Tyr33-Gly177 Accession # Q9H293
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

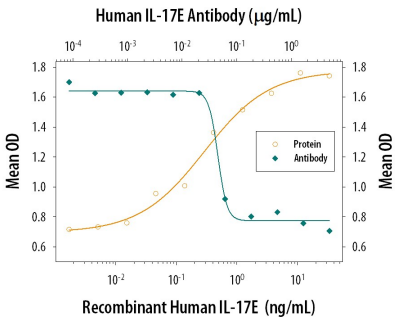
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human IL-17E/IL-25 (Catalog # 1258-IL)
Neutralization	Measured by its ability to neutralize IL−17E/IL−25-induced CXCL1/GRO alpha secretion in the HT−29 human colon adenocarcinoma cell line. The Neutralization Dose (ND_{50}) is typically 0.04-0.24 ug/mL in the presence of 5 ng/ml Recombinant Human IL−17E/IL−25.	

DATA

Neutralization



Cell CXCL1/GRO Alpha Secretion Induced by IL-17E/IL-25 and Neutralization by Human IL-17E/IL-25 Antibody. Recombinant Human IL-17E/IL-25 induces CXCL1/GRO alpha secretion in HT-29 human colon adenocarcinoma cell line in a dose-dependent manner (orange line), as measured by the Human CXCL1/GRO alpha Duoset (Catalog # DY275). Under these conditions, CXCL1/GRO alpha secretion elicited by IL-17E/IL-25 is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-17E/IL-25 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1258). The ND_{50} is typically 0.04-0.24 ug/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

The Interleukin 17 (IL-17) family proteins, comprising six members (IL-17, IL-17B through IL-17F), are secreted, structurally related proteins that share a conserved cysteine-knot fold near the C-terminus, but have considerable sequence divergence at the N-terminus. With the exception of IL-17B, which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers. IL-17 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2).

Human IL-17E cDNA encodes a 177 amino acid (aa) residues precursor protein with a putative 32 aa signal peptide (3). A second isoform of human IL-17E encoding a 161 aa precursor protein also exists (4). The two isoforms differ in their signal peptide sequences. Mature human IL-17E shares 76% aa sequence identity with mature mouse IL-17E. Human IL-17E also shares from 25% to 36% aa sequence identity with the other human IL-17 family members. IL-17E expression was detected at very low levels by PCR in various peripheral tissues including brain, kidney, lung, prostate, testis, adrenal gland spinal cord and trachea (3). IL-17E binds and activates IL-17 B Receptor (IL-17B R) (alternatively known as IL-17 Rh1, IL-17E R, and EVI27) (3), which is expressed in kidney and liver, and at lower levels in brain, testis and other endocrine tissues. The expression of IL-17B R is up regulated under inflammatory conditions. Ligation of IL-17E to IL-17 RB induces activation of nuclear factor kappa-B and stimulates the production of the proinflamatory cytokine IL-8 (3). IL-17 has also been found to promote the expression of the prototypical Th2 genes (4, 5).

References:

1. Aggarwal, S. and A.L. Gurney (2002) J. Leukoc. Biol. **71**:1.
2. Moseley, T.A. *et al.* (2003) Cytokine & Growth Factor Rev. **14**:155.
3. Lee, J. *et al.* (2001) J. Biol. Chem. **276**:1660.
4. Hurst, S.D. *et al.* (2002) J. Immunol. **169**:443.
5. Pan, G. *et al.* (2001) J. Immunol. **167**:6569.